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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,468	11/09/2001	Ranjith Divigalpitiya	55525US011	5982
32692	7590	02/19/2004	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			LE, HOA T	
			ART UNIT	PAPER NUMBER
			1773	

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/008,468	Applicant(s) RANJITH ET AL 	
	Examiner H. T. Le	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

Claim Rejections - 35 USC § 102 and Response to Arguments

1. Claims 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Jin et al (US 4,737,112) for reasons set forth in the last office action and further discussed below.

It is argued that because Jin teaches that embedded particles are "substantially uniformly distributed", "Jin does not disclose a web of embedded particles having random spacing between particles and that each particle is spaced from all other particles" as required in the presently amended claims. Note that the particles are only "evenly spaced" after the film in which the particle are embedded is exposed to a magnetic field (col. 3, lines 56-62). Thus, Jin still teaches the product as claimed. In fact, Jin discloses webs with particles embedded therein in randomly spaced fashion. See col. 5, lines 20-29. Even though such random spacing is described as undesirable, it does not change the fact that it anticipates applicant's claimed invention as such description meets all the claim requirements. Further, Note also that at col. 4, lines 33-37, Jin discloses the method of dispersing and embedding particles as follows : "**random sprinkling** of a controlled amount of conductive particles onto the surface of a sheeted-out, uncured matrix material having desired thickness, followed by gravity-penetration of the particles into the matrix material." (emphasis added).

In addition, Applicants' argument seems to suggest that "even spacing" between particles is a necessary result of uniform dispersion of particles. This is not the case. See applicants' own specification at page 11, lines 3-6 which discloses that "[t]he invention uses a technique of dispensing and embedding the particles to provide a **random, non-aggregating** distribution.

The particles are applied at a preselected density with a relatively **uniform** (number of particles per unit area) **distribution of particles.**" (page 11, lines 3-6, emphasis added) . Here, applicants describe a uniform dispersion of particles that results in "random, non-aggregating" fashion. Thus, to accept applicants' argument that a uniform dispersion of particles does not result in "random spacing" between particles is equivalent to invalidating applicants' own disclosure.

2. Claims 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Calhoun et al (US 5,240,761) for reasons set forth in the last office action and further discussed below.

It is also argued that Calhoun does not disclose "embedded particles having random spacing between particles and that each particle is spaced from all other particles" as required in the instant claims. At col. 6, lines 52-55, it is stated that "a few are rather **randomly spaced** from their nearest neighbors" (emphasis added). This anticipates the claim language of "comprising embedded particles... wherein said embedded particles have random spacing between particles and wherein each particle is spaced from all other particles."

3. Applicant's arguments filed November 20, 2003 with regard to the rejections of claims 31-33 based on the Jin and Calhoun references have been fully considered but they are not persuasive for reasons set forth in sections 1 and 2 above.

Claim Rejections - 35 USC § 103

4. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jin et al (US 4,737,112) as applied to claims 31-33 above, and further in view of the discussion below.

Jin et al disclose the claimed invention as discussed in the last office action and section 1 above. At col. 4, lines 1-11, Jin et al suggest particles of non-spherical or irregular shapes and metal/silver-coated particles as the conductive fillers. It would have been obvious for one having ordinary skill in the art to incorporate fibers including metal- or silver-coated fillers as the conductive particles because Jin et al teach that such irregularly-shaped and metal-coated particles can equally function as spherical particles in terms of providing conductivity in the composite taught by Jin.


5. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calhoun et al (US 5,240,761) as applied to claims 31-33 above, and further in view of Glackin (US 5,082,595).

Calhoun et al disclose an adhesive tape comprising electrically conductive particles as discussed in the last office action and section 2 above. Glackin discloses conductive fibrous filler such as metallic-coated fibers that provides electrical conductivity to an adhesive tape. See Glackin, col. 6, lines 59-64. Therefore, it would have been obvious for one having ordinary skill in the art to utilize fibers or particularly metal-coated fibers as conductive fillers in the adhesive tape of Calhoun; the motivation being to enhance the electrical conductivity as taught by Glackin.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 703-308-2415. The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



H. T. Le
Primary Examiner
Art Unit 1773